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REMARKS

This amendment is responsive to the office action dated May 4, 2005.

Claims 1-18 were pending in the application. Claims 1 and 11-13 were rejected. Claims 2-10 and 14-18 were determined as allowable but objected to. No claims were allowed by the Examiner.

By way of this amendment, the Applicant has amended Claim 1. Claims 2-18 remain unchanged.

Accordingly, Claims 1-18 are currently pending.

I. **REJECTION OF CLAIMS UNDER 35 USC 103**

Claims 1 and 11-13 were rejected under 35 USC 103(a), as being obvious over "Synthetic Grease" by Rudnick et al. (Rudnick). The rejection stated that Rudnick discloses a composition containing a polymer fluid and a wax having a low melting point. The rejection further states that although Rudnick does not disclose a thermooptically active composition, such limitations when included in the preamble of the claim are not given patentable weight because they merely recite the purpose of the composition and do not provide any structural limitations. Finally, the rejection states that although Rudnick does not disclose the particular mixing ratios provided in the claims of the present invention, it would have been obvious to one skilled in the art to vary the mixing ratios to discover the optimum workable ranges.

The Applicant has amended Claim 1 of the present invention to include specific structural limitations directed to the thermooptically active properties of the composition of the present invention. Specifically, the Applicant has amended Claim 1 to include the following new limitations:

wherein said composition is thermooptically active having an OFF state at a first temperature wherein said wax is at least partially solidified and said composition is at least partially opaque and an ON state at a second temperature, said second

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temperature being higher than said first temperature wherein said wax is at least partially fluidized and said composition is at least partially transparent.

This limitation is the core concept of the present invention. Specifically, the present invention is directed at a co-polymer composition that can be utilized as an optical switching medium by varying the environmental temperature of the composition. The present invention provides for a wax having a low melting point to be suspended in a clear polymer fluid. When the co-polymer composition is maintained at a relatively lower first temperature, the wax begins to solidify into microcrystalline particles that are suspended in the clear fluid. In this state, the particles cause the entire composition to become at least partially opaque, causing the composition to "switch" to an OFF state where light is not allowed to pass through the composition. When the temperature of the co-polymer composition is raised from the first temperature to a second temperature, the wax transitions to a clear fluid. In this state the entire composition becomes clear, causing the composition to "switch" to an ON state where light is allowed to pass through the composition. By amending Claim 1 to include clear structural limitations directed at the thermooptic operation of the composition of the present invention, the Applicant believes that this feature has now been given patentable weight.

It is clear from a review of the Rudnick reference that there is absolutely no disclosure related to the composition in Rudnick having the ability to transition between an ON and OFF state. There is further no disclosure in the cited reference that suggests that the synthetic grease composition is thermooptically active or suitable for use as an optical switch. Further, since Claims 11-13 are dependent on Claim 1, the limitations in Claim 1 are also considered to be part of the dependent claims, Claims 11-13. Since the cited Rudnick is lacking in disclosure relative to several critical claimed limitations found in the claims of the present invention, as amended, the cited reference cannot render the present invention obvious. Therefore, reconsideration and withdrawal of this rejection is respectfully requested.

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II. ALLOWABLE SUBJECT MATTER

The Examiner indicated that Claims 2-10 and 13-18 were allowable but objected to as being dependent on rejected base claims. The Applicant believes that in view of the amendments and arguments presented above, the base claims from which Claims 2-10 and 13-18 depend are now in allowable form. Therefore, it is believed that claims 2-10 and 13-18 are also fully allowable. Withdrawal of this objection is respectfully requested.

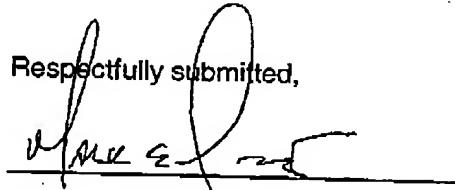
III. CONCLUSION

Accordingly, claims 1-18 are believed to be in condition for allowance and the application ready for issue.

Corresponding action is respectfully solicited.

PTO is authorized to charge any additional fees incurred as a result of the filing hereof or credit any overpayment to our account #02-0900.

Respectfully submitted,


Mark E. Tetreault, Esq.
Reg. No. 48,289

BARLOW, JOSEPHS & HOLMES, Ltd.
101 Dyer Street, 5th Floor
Providence, RI 02903
(401) 273-4446 (tel)
(401) 273-4447 (fax)
met@barjos.com